



## NASA Weekly Update

Week of January 22 - 29, 2007

**Jan 29: NASA's Day of Remembrance:** Today, NASA honors the Apollo 1, Challenger and Columbia astronauts, as well as others at NASA who have given their lives in pursuit of the dream of flight. In recognition of NASA's Day of Remembrance, NASA Administrator Mike Griffin and astronauts will visit Arlington National Cemetery to lay a wreath in memory of those members of the NASA family who have fallen in the line of duty.

**Jan 23: Heads of Agency International Space Station Joint Statement:** The heads of the International Space Station partners, space agencies



*Expedition 14 Flight Engineer Mikhail Tyurin holds camera equipment as he floats in the Zvezda Service Module of the International Space Station.*

from Canada, Europe, Japan, Russia and the United States, met at European Space Agency Headquarters in Paris, France, on January 23, 2007, to review ISS cooperation. In their discussions, the Heads of Agency noted the significant accomplishments of the partnership in implementing the space station configuration and assembly sequence endorsed at their last meeting in March 2006. For more information about the International Space Station, visit the Internet at: <http://www.nasa.gov/station>.

**Jan 24: NASA Creates Microscopic Technology for Webb Space Telescope:** NASA engineers and scientists building the James Webb Space Telescope have created a new telescope technology called "microshutters." Microshutters are tiny doorways the width of a few hairs that will allow the telescope to view the most distant stars and galaxies humans have ever seen. The microshutters will enable scientists to mask unwanted light from foreground objects so the telescope can focus on the faint light of the first stars and galaxies that formed in the universe. Only the Webb Telescope has this technology. The Webb Telescope will launch in the next decade. For diagrams and images of the microshutters, visit: <http://www.nasa.gov/vision/universe/starsgalaxies/microshutters.html>.

## Weekly Status Reports



### Atlantis (OV-104)

Mission: STS-117 - 21st International Space Station Flight (13A) - S3/S4 Truss Segment Solar Arrays  
 Vehicle: Atlantis (OV-104)  
 Location: Orbiter Processing Facility Bay 1  
 Launch Date: Targeted for March 15, 2007  
 Launch Pad: 39A  
 Crew: Sturckow, Archambault, Reilly, Swanson, Forrester and Olivas  
 Inclination/Orbit Altitude: 51.6 degrees/122 nautical miles

On Wednesday, the Space Shuttle Program signed a change request moving the STS-117 targeted launch date to March 15, one day earlier than originally planned. Final vehicle closeouts are under way in preparation for technicians to move Atlantis to the Vehicle Assembly Building on Feb. 7.

Technicians completed the flight deck closeout and are working to finish closing out the forward area. The final vehicle power down and main landing gear

functional test are scheduled for Jan. 29. Aft structural leak test preparations began today, and the test will begin early next week. On Jan. 31, technicians will perform the final weight and center-of-gravity measurements on the vehicle, and the orbiter transporter system will be brought into the bay on Feb. 1.

Last week, the external tank scheduled to fly with Atlantis, designated ET-124, was moved from the checkout cell in the Vehicle Assembly Building to be mated to the solid rocket boosters in high bay 1. Technicians are completing the final foam application and strut closeouts in preparation for attaching the orbiter on Feb. 7. At Pad A, technicians performed a payload canister fit check. The canister will be used to transport the payload for the mission, the S3/S4 solar arrays, scheduled to go to the pad on Feb. 18.

#### Endeavour (OV-105)

Mission: STS-118 - 22nd International Space Station

Flight (13A.1) - S5 Truss Segment

Vehicle: Endeavour (OV-105)

Location: Orbiter Processing Facility Bay 2

Launch Date: Targeted for June 28, 2007

Launch Pad: 39A

Crew: Kelly, Hobaugh, Williams, Morgan, Mastracchio, Caldwell and Anderson Inclination/Orbit Altitude: 51.6 degrees/122 nautical miles

Endeavour remains in Orbiter Processing Facility bay 2, and technicians continue preparing the vehicle for its first launch in just over four years. The vehicle has undergone an extensive modification period, including the addition of all of the return-to-flight safety upgrades added to both Discovery and Atlantis.

Last week, technicians installed Endeavour's three space shuttle main engines. On Tuesday, the right-hand orbital maneuvering system pod was moved into the bay. Inspections then began in preparation for the pod to be installed on the vehicle, scheduled for early next week.



This week, the crew aboard the International Space Station prepared for an unprecedented series of spacewalks. NASA astronauts Mike Lopez-Alegria and Sunita Williams are scheduled to begin a 6.5-hour spacewalk from the station around 9 a.m. CST on

Wednesday, Jan. 31. It will be the first of a record four spacewalks planned during the next month.

Lopez-Alegria and Williams will conduct other spacewalks on Feb. 4, 8 and 22. The first three spacewalks will originate from the station's Quest airlock and the astronauts will use U.S. spacesuits. Lopez-Alegria and cosmonaut Mikhail Tyurin will use Russian spacesuits for the last spacewalk and will exit the station from the Pirs airlock.

The three U.S. spacewalks will rearrange the station's cooling system, bringing online new portions of the system that were activated during a shuttle mission in December 2006. The Russian spacewalk will free a stuck antenna on the ISS Progress 23 cargo craft docked to the aft end of the station, ensuring that craft can safely undock in April.

The crew began the week unloading some of the more than 2.5 tons of food, fuel and supplies that were delivered to the station on Jan. 19 by the ISS Progress 24 cargo craft, which included fresh produce, gifts from home, new clothing, spare parts, oxygen and water. For more about the crew's activities and station sighting opportunities, visit: <http://www.nasa.gov/station>.



## Upcoming Events

- **Jan 31; Feb 4, 8:** Expedition 14 Commander Mike Lopez-Alegria and Flight Engineer Sunita Williams will begin a series of spacewalks with a six and a half hour excursion on Jan. 31. Subsequent spacewalks are scheduled on Feb. 4 and Feb. 8.
- **Feb 18:** Launch of THEMIS
- **Feb 29:** New Horizons will make its closest pass to Jupiter on Feb. 28, threading its path through an "aim point" 1.4 million miles (2.3 million kilometers) from the center of Jupiter.
- **NET March 15:** Launch of Space Shuttle Atlantis from Kennedy Space Center.
- **March 19:** Landing of the Expedition 14 crew at Kazakhstan's Baikonur Cosmodrome. The crew includes Commander Michael Lopez-Alegria, Flight Engineer Mikhail Tyurin, and Flight Engineer Sunita Williams .
- **NET March:** Launch of the Expedition 15 crew. The crew includes Commander Fyodor Yurchikhin and Flight Engineer Oleg Kotov. Williams will finish her remaining time of her six-month tour of duty on the station as a member of Expedition 15 crew.

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